

WHAT IS CLAIMED IS

1. A corrosion-resistant Al-based structural member comprising a base layer (2) adhered to the surface of an Al-based structural member (1₀), and a corrosion-inhibiting coating (3) adhered to the surface of the base layer (2), the base layer (2) comprising Zn, and the corrosion-inhibiting coating (3) comprising a trivalent Cr-containing chromate coating for Zn.

2. A process for producing a corrosion-resistant Al-based structural member, the process comprising a step of forming a base layer (2) comprising Zn on the surface of an Al-based structural member (1₀) by a zincate treatment, and a step of forming a corrosion-inhibiting coating (3) comprising a trivalent Cr-containing chromate coating for Zn on the surface of the base layer (2) by a chromate treatment using a trivalent chromate agent.

3. The process for producing a corrosion-resistant Al-based structural member according to Claim 2, wherein a treatment time t_1 required for the zincate treatment is set at a value that enables the amount of Zn deposited on the surface of the Al-based structural member (1₀) to be increased to give the base layer (2) comprising Zn having a required thickness, and a treatment time t_2 required for the chromate treatment is set at a value that enables the trivalent Cr-containing chromate coating for Zn to be reliably formed on the surface of the base layer (2) while ensuring the thickness of the base layer (2), despite the base layer (2) being dissolved by the chromate treatment.

4. The process for producing a corrosion-resistant Al-based structural member according to Claim 3, wherein the treatment time t_1 required for the zincate treatment is ≥ 30 s, and the treatment time t_2 required for the chromate treatment is ≤ 15 s.